CUSTOMIZABLE GESTURE MAPPINGS FOR
MOTION CONTROLLED HANDHELD DEVICES

ABSTRACT

A motion controlled handheld device includes a display having a viewable surface and operable to generate an image and a gesture database maintaining a plurality of predefined gestures. Each gesture is defined by a motion of the device with respect to a first position of the device. The device includes an application having a plurality of predefined commands and a motion detection module operable to detect motion of the handheld device within three dimensions and to identify components of the motion in relation to the viewable surface. The device includes a user interface operable to receive user input associating selected ones of the gestures with corresponding ones of the commands and a gesture mapping database comprising a command map for the application. The command map comprises mappings of the selected gestures to the corresponding commands as indicated by the user input. The device also includes a control module operable to load the application, to track movement of the handheld device using the motion detection module, to compare the tracked movement against the gestures to determine a matching one of the gestures, to identify, using the command map, the command mapped to the matching gesture, and to perform the identified command using the application.